

lineal foot. You will use these units to measure lumber for your project.

Board feet (bd. ft.) is the measurement used to buy all solid lumber. A board foot measures 1 inch thick, 12 inches wide, and 12 inches long. Notice that a board foot contains 144 cubic inches. See Fig. 3-12. Wood less than 1 inch thick is considered a full inch when computing board feet. Stock over 1 inch is figured by the next greater quarter inch. For example, a piece of oak 1-3/8 inch thick would be considered 1-1/2 inches thick.

Woodworkers determine board feet by measuring the thickness, width, and length of a board. The measurements are then put into one of the following formulas. If the length is in feet, use the first formula. If all the dimensions are in inches, use the second.

$$(1) \text{ board feet} = \frac{\text{Thickness (")} \times \text{Width (")} \times \text{Length (')}}{12}$$

Example: A board measuring 1" × 12" × 18' contains 18 board feet.

$$\frac{1 \times 12 \times 18}{12} = 18 \text{ bd. ft.}$$

$$(2) \text{ board feet} = \frac{\text{Thickness (")} \times \text{Width (")} \times \text{Length (")}}{144}$$

Example: A board measuring 1" × 12" × 18" contains 1-1/2 board feet.

$$\frac{1 \times 12 \times 18}{144} = 1\text{-}1/2 \text{ bd. ft.}$$

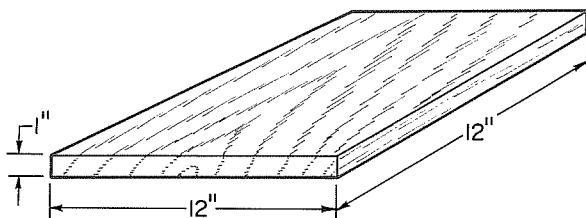


Fig. 3-12. The standard measurement for solid lumber is the board foot. A board foot measures 1 inch thick, by 12 inches wide, by 12 inches long.

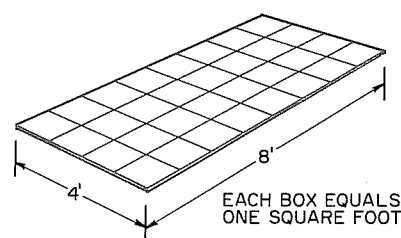


Fig. 3-13. The standard size for sheet stock (plywood, particle board, hardboard) is 4 feet by 8 feet. One standard sheet has 32 square feet.

Square feet (sq. ft.) is the measurement used to buy plywood, particle board, and hardboard. A square foot is 12 inches wide and 12 inches long. See Fig. 3-13. The thickness of the board is not considered when determining square feet. A piece of plywood measuring 4 feet wide and 8 feet long contains 32 square feet.

Lineal feet (lin. ft.) is the measurement used for moldings and pre-shaped wood. A lineal foot is 12 inches long. See Fig. 3-14. Thickness and width are not considered when determining lineal, also called running, feet.

Cost. Project plans seldom include the cost of materials. This is because materials are priced differently, depending on where you buy them. However, when making your own bill of materials, you should include cost information. Cost of materials often determines whether you will build a project or not.

Plan of Procedure

A plan of procedure lists the necessary steps for building the project. As you can see in Fig. 3-15, the plan should also include a list of the necessary tools and machines. You may find it necessary to alter your plan because you lack a particular tool. This kind of problem is best solved before you begin construction.

The purpose of the plan of procedure is to keep you "on track" during construction. Without a plan it is too easy to make mistakes